IN THE CLAIMS

Please amend the claims as follows:

Claims 1-24 (Cancelled).

Claim 25 (Currently Amended): A process for producing a platinum ~~metal~~ particle nucleic acid composite comprising platinum ~~metal~~ particles, the process comprising:

providing a nucleic acid specific platinum ~~metal~~ complex selected from the group consisting of dichloro (2,2':6',2"-terpyridine)platinum (II), cis-diaminodichloroplatinum (II), and combinations thereof;

reacting said nucleic acid specific ~~metal~~ platinum complex with a nucleic acid to produce a ~~metal~~ platinum complex-nucleic acid conjugate;

removing any non-conjugated ~~metal~~ platinum complexes and/or non-conjugated by-products; and

reacting the ~~metal~~ platinum complex-nucleic acid conjugate with a reducing agent to produce the ~~metal~~ platinum particle nucleic acid composite,

wherein the ~~metal~~ platinum complex-nucleic acid conjugate is formed by the specific reacting of the nucleic acid specific ~~metal~~ platinum complex with bases of the nucleic acid,

wherein the ~~metal~~ platinum particle nucleic acid composite is catalytically active towards electroless metallization,

wherein the ~~metal~~ platinum particles in the ~~metal~~ platinum nucleic acid composite cannot be visualized by atomic force microscopy, and

wherein the ~~metal~~ platinum particles in the platinum ~~metal~~ particle nucleic acid composite are subnanometer in size.

Claim 26 (Previously Presented): The process according to claim 25, wherein the nucleic acid is reacted while dissolved in solution, immobilized on a substrate or in a semisolid state with said nucleic acid specific complex.

Claim 27 (Currently Amended): The process according to claim 25, wherein the nucleic acid is selected from the group consisting of DNA, RNA, PNA, CNA, oligonucleotides, oligonucleotides of DNA, oligonucleotides of RNA, primers, A-DNA, B-DNA, Z-DNA, polynucleotides of DNA, polynucleotides of RNA, triplexes of nucleic acids quadruples of nucleic acids, and combinations thereof.

Claim 28 (Previously Presented): The process according to claim 25, wherein the nucleic acid is double-stranded or single-stranded.

Claim 29 (Cancelled).

Claim 30 (Currently Amended): The process according to claim 25, wherein the ~~metal~~ platinum complex-nucleic acid conjugate is removed from [[a]] the non-conjugated platinum complexes ~~metal complex~~ and/or the non-conjugated by-products by chromatography, precipitation or rinsing.

Claim 31 (Currently Amended): The process according to claim 25, wherein the ~~metal~~ platinum complex-nucleic acid conjugate is reacted with at least one reducing agent selected from the group consisting of a boron hydride, a borohydride salt, a Lewis base:

borane complex of formula L:BH_3, wherein L is an amine, an ether, a phosphine, a sulfide, a hydrazine, a hydroxylamine, a hypophosphite salt, formate salt, a dithionite salt, and H_2.

Claim 32 (Previously Presented): The process according to claim 31, wherein the reducing agent is a gaseous reducing agent.

Claims 33-34 (Cancelled).

Claim 35 (Currently Amended): The process according to claim 25, further comprising treating the platinum ~~metal~~ particles within the platinum ~~metal~~ particle nucleic acid composite with an elecroless plating solution to enlarge the platinum ~~metal~~ particles.

Claim 36 (Currently Amended): The process according to claim 35, wherein the platinum ~~metal~~ particles within the ~~metal~~ platinum complex-nucleic acid conjugate are treated while dissolved in solution, immobilized on a substrate or in a semisolid state with an electroless plating solution.

Claim 37 (Currently Amended): The process according to claim 35, wherein the ~~metal~~ platinum particles within the ~~metal~~ platinum particle nucleic acid composite are treated with an electroless plating solution comprising at least one ~~of the~~ metal selected from the group consisting of Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir Ag, Pt, Au and combinations thereof.

Claim 38 (Currently Amended): The process according to claim 35, wherein the ~~metal~~ platinum particles of the composite are treated with an electroless plating solution comprising at least one material selected from the group consisting of magnetic Fe, Co, Ni, a combination of these metals, and a combination of these metals with boron (B) or phosphorus (P).

Claim 39 (Currently Amended): A ~~metal~~ platinum particle nucleic acid composite produced by the method of claim 25.

Claim 40 (Withdrawn-Currently Amended): A process for the manufacture of a nanowire, comprising:

providing a ~~metal~~ platinum particle nucleic acid composite comprising ~~metal~~ platinum particles produced by a process comprising chemically modifying at least one cytosine residue of a polynucleotide to attach an imidazole group as a platinum ~~metal~~ ligand, and metalating the attached imidazole with a ~~metal~~ platinum complex having a tridentate ligand and a leaving group to form a conjugated platinum ~~metal~~ complex;

removing any non-conjugated ~~metal~~ platinum complexes and/or non-conjugated by-products;

reacting the ~~metal~~ platinum complex-nucleic acid conjugate with a reducing agent to produce a ~~metal~~ platinum particle nucleic acid composite; and

growing the ~~metal~~ platinum particles of the composite by electroless deposition of a metal selected from the group consisting of Fe, Co, Ni, Cu, Ru, Rh, Pd, Os, Ir, Ag, Pt, Au and alloys thereof to produce said nanowire that comprises metal particles,

wherein the ~~metal~~ platinum particles of the platinum ~~metal~~ complex-nucleic acid conjugate are catalytically active towards electroless metallization, wherein the platinum ~~metal~~ particles of the metal complex-nucleic acid conjugate cannot be visualized by atomic force microscopy, and

wherein the metal particles in the metal particle nucleic acid complex are subnanometer in size.

Claim 41 (Withdrawn): A nanowire produced by the process of claim 40,

wherein the nanowire comprises insulating spaces between the individual metal particles positioned along a nucleic acid strand of said nucleic acid of said metal particle nucleic acid composite.

Claim 42 (Withdrawn): A small-scale network or electronic circuit, comprising at least one nanowire according claim 41.

Claim 43 (Previously Presented): The process according to claim 26, wherein the nucleic acid is reacted in a semisolid state, and wherein the semisolid state is a gel.

Claim 44 (Cancelled).

Claim 45 (Previously Presented): The process according to claim 30, wherein the metal complex-nucleic acid conjugate is removed from the non-conjugated metal complex and/or the non-conjugated by-products by gel filtration chromatography, ion exchange chromatography, ethanol precipitation, water rinsing or aqueous salt solution rinsing.

Claim 46 (Cancelled).

Claim 47 (Withdrawn): The process according to claim 40, wherein said growing is a controlled growing.

Claims 48-66 (Cancelled).

Claim 67 (Withdrawn-Currently Amended): The process according to claim 40, wherein the chemically modifying at least one cytosine residue of a polynucleotide to attach an imidazole group as a ~~metal~~ platinum ligand comprises bromine activation of the C-5 position of cytosine and nucleophilic displacement with 1-(3-aminopropyl)imidazole.